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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/709,145	11/10/2000	Arturo A. Rodriguez	A-6655	3251

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SCIENTIFIC-ATLANTA, INC.  
INTELLECTUAL PROPERTY DEPARTMENT  
5030 SUGARLOAF PARKWAY  
LAWRENCEVILLE, GA 30044

EXAMINER
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LONSBERRY, HUNTER B

ART UNIT	PAPER NUMBER
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2623

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/12/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/12/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOmail@sciatl.com

**Office Action Summary**

Application No.

09/709,145

Applicant(s)

RODRIGUEZ, ARTURO A.

Examiner

Hunter B. Lonsberry

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 10-18 and 20-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-18 and 20-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 10/30/06 have been fully considered but they are not persuasive.

Applicant argues that Gell, Shah-Nazaroff and Blahut fail to teach receiving bandwidth allocation schedule information describing a division of bandwidth during a plurality of time periods (pages 12-15).

The Examiner disagrees. Blahut discloses a system in which two different VOD services are provided to users 222 from a headend 202 over a common medium and are thus divided between an amount of available bandwidth (figures 3 and 4), a user may select between a first set of virtual channels which include advertisements, and a second set without advertisements (column 4, lines 1-61), the users who select the VOD presentation with advertisements pay less to view the programming, further a schedule is provided (column 5, line 27-column 6, line 3, scheduling is on column 4, line 41-column 5, line 15). Each VOD service utilizes a different amount of bandwidth in that the virtual channels, which include advertisements, take up more bandwidth than the virtual channels, which do not include advertisements. Further the user is informed of the availability of each type of service (figure 5, step 230), which constitutes information describing the division of bandwidth.

Applicant argues that the combination fails to teach "describing the division of bandwidth between content delivery modes (pages 16-17).

The Examiner disagrees. Shah-Nazaroff discloses in figure 5, a number of viewing options with prices for PPV and VOD listings, such as audio and video quality upgrades and the ability to record, prices are higher for better quality video as more bandwidth is consumed. These are different content delivery modes as they disclose different modes in which the program may be delivered.

Further, Blahut discloses a system in which two different VOD services are provided to users 222 from a headend 202 over a common medium and are thus divided between an amount of available bandwidth (figures 3 and 4), a user may select between a first set of virtual channels which include advertisements, and a second set without advertisements (column 4, lines 1-61), the users who select the VOD presentation with advertisements pay less to view the programming, further a schedule is provided (column 5, line 27-column 6, line 3, scheduling is on column 4, line 41-column 5, line 15). Each VOD service utilizes a different amount of bandwidth in that the virtual channels that include advertisements take up more bandwidth than the virtual channels that do not include advertisements. The user is informed of the availability of each type of service (figure 5, step 230) that constitutes information describing the division of bandwidth.

Applicant argues that the Official Notices were properly traversed in the prior action (pages 10-12).

The Examiner disagrees entirely.

In the previous office action the Examiner noted:

Applicant's failure to properly traverse the Official Notice taken as admission of prior art. In particular applicant must specifically point out the supposed errors in the Examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well known in the art. See 37 CFR 1.111(b). Applicant simply makes a broad statement without referring to specific claims or the specific features of which Official Notice was taken.

The statement that the facts "should not be considered well known since the Office Action does not included specific factual findings predicated on sound technical and scientific reasoning to support such conclusions" is not a proper traversal but instead a *vague and general statement* which fails to inform the examiner which Official Notices are being traversed and fails to address specifically why each specific Official Notice is not considered to be common knowledge.

The Examiner finds Applicant's traversal of statement "the subject matter of each particular finding of Official Notice should not be considered to be well-known for the specific reasons that the statements are too complex and detailed to be considered well known." To be an extremely general statement. The Examiner does not consider this to be a proper traversal as applicant fails to address each statement and why that statement is too complex and detailed to be well known. This is a general allegation, which does not refer to the specific claim element. Is the Examiner to assume that these features are too complex and detailed for Applicant to discuss each claim feature? Is the Examiner to recognize that these features are too complex and detailed when used in combination of the features found in the independent claims? Are these features too

complicated and detailed for one to understand on their own? Applicant's response is unclear, and simply recites the features with no further discussion or argument supporting why these features are too complex and detailed and why there is no sound technical and scientific reasoning. Applicant continues to fail to point out the error in the Examiner's action.

Further, to clarify the record, the Examiner requests confirmation that Applicant was the first to invent: random access options used in conjunction with VOD, charging different prices to customers based on customer priority, displaying an indicator for utilizing a viewing option, displaying an elapsed time, and displaying an indicator intermittently, and the use of a user selectable icon within an EPG to bring up a menu of options. Further the Examiner requests disclosure within the specification to substantiate that applicant is the first to invent each of these features and detailed information, which shows how to make or use each feature.

Upon appeal or proper traversal, the Examiner will supply a reference as documentary evidence for each Official Notice in that at the current time Applicant fails to properly traverse the Official Notices taken in the previous action.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, and 10-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,157,377 to Shah-Nazaroff in view of U.S. Patent 5,802,502 to Gell and U.S. Patent 5,532,735 to Blahut.

Regarding claims 1, and 11, Shah-Nazaroff discloses in figure 5, a number of viewing options with prices for PPV and VOD listings, such as audio and video quality upgrades and the ability to record, prices are higher for better quality video as more bandwidth is consumed (column 2, lines 17-52, 63-67, column 3, lines 1-16, 65-67, Figure 4).

Shah-Nazaroff does not disclose that the bandwidth allocation information is related to the bandwidth divided between a first and second service provided by digital broadband delivery system, information describing a division of bandwidth during a plurality of time periods and plurality of digital home communication terminals, dynamically assigning a price criterion to a group of viewing options, each viewing option associated with a content delivery mode.

Gell discloses a database 905 which provides to a user with pricing information related to QoS for a program, as well as video resolution, and audio options, in response to a user request for VOD services (column 12, line 49-column 13, line 2), there may be multiple users (column 13, lines 40-47), ), information describing a division of bandwidth during a plurality of schedule periods is received (time of day information, holiday, working day, weekend) and this information is used to determine pricing information (column 4, line 34-column 5, line 7), the prices are generated dynamically, by receiving pricing from a number of different program providers (column 12, lines 49-

60, column 13, lines 3-11, lowest price is selected based on QOS and quality selections, bandwidth allocation is the QOS settings, prices may be different for different delivery mediums, column 5, lines 38-55), thus enabling a user to choose the best balance of quality and price.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Shah-Nazaroff to utilize the dynamic pricing, variable delivery methods and scheduling information of Gell, thus enabling a user to choose the best balance of quality and price.

The combination of Shah-Nazaroff and Gell fails to teach the bandwidth allocation information is related to the bandwidth divided between a first and second service provided by digital broadband delivery system.

Blahut discloses a system in which two different VOD services are provided to users 222 from a headend 202 over a common medium and are thus divided between an amount of available bandwidth (figures 3 and 4), a user may select between a first set of virtual channels which include advertisements, and a second set without advertisements (column 4, lines 1-61), the users who select the VOD presentation with advertisements pay less to view the programming, further a schedule is provided (column 5, line 27-column 6, line 3, scheduling is on column 4, line 41-column 5, line 15).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff and Gell to utilize the division of bandwidth, scheduling and pricing features of Blahut, for the advantage of reducing



subscriber costs by encouraging subscribers to watch advertising enabled programming.

Regarding claims 2, and 12, Shah-Nazaroff discloses in Figure 5, a number of viewing options and prices, user selections are transmitted to a server prior to the upgraded features being provided to the user (Figure 4).

Regarding claims 3-4, 10, 13-14, Shah-Nazaroff discloses in Figure 5, a number of viewing options and prices.

Gell discloses that a subscriber station transmits a request for programming, and a database station provides price, and quality data to the user selection device (column 12, line 61- column 13, line 11).

The combination of Shah-Nazaroff, Gell and Blahut does not disclose receiving a subscriber request that comprises a request for a list of available viewing options and providing those options to the user in response to the request.

The examiner takes official notice that transmitting a price in response to a user request is well known in the art, for example, when online shopping, products may be listed without a price, but merely a link to further information on the product which includes pricing information to aide a user in making a purchase.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell and Blahut to transmit

pricing information in response to a user request thus aiding a user in making a purchase.

Regarding claims 5 and 15, Shah-Nazaroff discloses in Figure 5, different pricing options, which include VOD reservation option, which allows fewer simultaneous broadcast in order to receive higher solution and definition (column 6, lines 31-40).

Regarding claims 6 and 16, Shah-Nazaroff discloses that a user may purchases video and audio upgrades for a Video game, which are based upon how long a user plays, upgraded options cost more due to additional bandwidth consumption (Figure 5, column 2, lines 63-67, column 6, lines 41-47), VOD programs may also be viewed by a user.

In a related embodiment, Gell discloses that users may be billed on a per minute, per packet or per pit rate (column 5, 37-46).

The combination of Shah-Nazaroff, Blahut and Gell does not disclose a random access option and a fee associated with a length of time that random access options are accessed.

The examiner takes official notice that random access options, such as trick play modes, used in conjunction with VOD are well known in the art. Trick play streams are additional data streams, which take up additional bandwidth and enable a user to rewatch an interesting program segment.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Blahut and Gell which charges users additional fees for utilizing more bandwidth, to include a trick play option, and charge a user additional fees to compensate the provider for the additional bandwidth costs, thus enabling a provider to maintain QoS requirements to their existing customers.

Regarding claims 7 and 17, the combination of Shah-Nazaroff and Gell discloses different pricing schemes for varying levels of QoS and video options selected.

The combination of Shah-Nazaroff, Gell and Blahut fails to disclose changing the price of viewing options based on subscriber profile data or subscriber priority data.

The examiner takes official notice that charging different prices to customers based on customer priority is notoriously well known in the art. For example, high profile customers may receive lower prices in order to ensure their loyalty.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell and Blahut to include subscriber priority as a price criterion, in order to encourage subscriber loyalty.

3. Claims 20-26 and 28-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,157,377 to Shah-Nazaroff in view of U.S. Patent

5,802,502 to Gell and U.S. Patent 5,532,735 to Blahut further in view of U.S. Patent 6,697,376 to Son.

Regarding claims 20 and 28, Shah-Nazaroff discloses in figure , a bandwidth allocation manager(a server system with broadcast source i/o module 830, billing I/O 840, and client I/O 820, column 10, lines 1-36) that produces bandwidth allocation information by dynamically assigning a content delivery mode to a plurality of digital transmission channels (column 6, lines 31-40, user orders a VOD program from a satellite provider, and is assigned to a channel with fewer simultaneous transmissions in order to receive a higher quality picture/resolution, a user may receive access to a CATV source with upgradeable options, column6, lines 16-30; thus assigning more bandwidth to a channel which carries an upgraded program feature),

A pricing system that receiving bandwidth allocation information from the bandwidth allocation manager and assigns a price criterion to a group of bandwidth options (figure 5, view options and prices, this may be stored in a billing server, column 5, lines 54-67).

Shah-Nazaroff does not disclose dynamically assigning a price criterion to a group of viewing options based in part on bandwidth allocation information or positioning the bandwidth manager in the headend or the use of a plurality of content delivery modes.

Gell discloses a database 905 which provides to a user with pricing information related to QoS for a program, as well as video resolution, and audio options, in

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response to a user request for VOD services (column 12, line 49-column 13, line 2), there may be multiple users (column 13, lines 40-47), the prices are generated dynamically, by receiving pricing from a number of different program providers (column 12, lines 49-60, column 13, lines 3-11, lowest price is selected based on QOS and quality selections, bandwidth allocation is the QOS settings for multiple channels and interfaces, prices may be different for different delivery mediums, column 5, lines 38-55), thus enabling a user to choose the best balance of quality and price.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Shah-Nazaroff to utilize the dynamic pricing and variable delivery methods of Gell, thus enabling a user to choose the best balance of quality and price.

The combination of Shah-Nazaroff and Gell does not disclose placing the bandwidth allocation manager in the headend or the use of a plurality of content delivery modes.

Son discloses in figure 3, a number of SCM 314-317, located within headend 304, which act as bandwidth allocation managers for a number of subscriber stations 305-308 (column 6, lines 33—column 7, line 32), the SCMs provide a number of VOD channels via local nodes (column 7, line 47-51), the allocation process takes place in figure 7, in which a user requests VOD services in step 702, a SCM allocates bandwidth for the user and a PID for the user (step 310) and transmits the program in step 718 (column 9, lines 63-column 10, line 22), thus reducing latency by placing the bandwidth allocation manager within the headend.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff and Gell to place the bandwidth manager within a headend, as taught by Son, thus reducing latency by placing the bandwidth allocation manager within the headend.

The combination of Shah-Nazaroff, Gell and Son fails to teach the assignment of one of a plurality of content delivery modes to each of a plurality of digital transmission channels for a plurality of time periods

Blahut discloses a system in which two different VOD services are provided to users 222 from a headend 202 over a common medium over a number of virtual channels for a number of periods (column 4, lines 13-41) a user may select between a first set of virtual channels which include advertisements, and a second set without advertisements (column 4, lines 1-61), the users who select the VOD presentation with advertisements pay less to view the programming, further a schedule is provided (column 5, line 27-column 6, line 3, scheduling is on column 4, line 41-column 5, line 15).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell, and Son to utilize the virtual channel, content delivery modes and pricing features of Blahut, for the advantage of reducing subscriber costs by encouraging subscribers to watch advertising enabled programming.

Regarding claims 21 and 31, Shah-Nazaroff discloses in Figure 5, a number of viewing options and prices, user selections are transmitted to a server prior to the upgraded features being provided to the user (Figure 4).

Regarding claims 22-23 and 30, Shah-Nazaroff discloses in Figure 5, a number of viewing options and prices.

Gell discloses that a subscriber station transmits a request for programming, and a database station provides price, and quality data to the user selection device (column 12, line 61- column 13, line 11).

The combination of Shah-Nazaroff, Gell, Blahut and Son does not disclose receiving a subscriber request that comprises a request for a list of available viewing options and providing those options to the user in response to the request.

The examiner takes official notice that transmitting a price in response to a user request is well known in the art, for example, when online shopping, products may be listed without a price, but merely a link to further information on the product which includes pricing information to aide a user in making a purchase.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gel, Blahut and Son to transmit pricing information in response to a user request thus aiding a user in making a purchase.

Regarding claim 24, Shah-Nazaroff discloses in Figure 5, different pricing options, which include VOD reservation option, which allows fewer simultaneous broadcast in order to receive higher solution and definition (column 6, lines 31-40).

Regarding claims 25 and 43, Shah-Nazaroff discloses that a user may purchases video and audio upgrades for a Video game, which are based upon how long a user plays, upgraded options cost more due to additional bandwidth consumption (Figure 5, column 2, lines 63-67, column 6, lines 41-47), VOD programs may also be viewed by a user.

In a related embodiment, Gell discloses that users may be billed on a per minute, per packet or per pit rate (column 5, 37-46).

The combination of Shah-Nazaroff, Son, Blahut and Gell does not disclose a random access option and a fee associated with a length of time that random access options are accessed.

The examiner takes official notice that random access options, such as trick play modes, used in conjunction with VOD are notoriously well known in the art. Trick play streams are additional data streams, which take up additional bandwidth and enable a user to rewatch an interesting program segment.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell, Blahut and Son which charges users additional fees for utilizing more bandwidth, to include a trick play option, and charge a user additional fees to compensate the provider for the additional



bandwidth costs, thus enabling a provider to maintain QoS requirements to their existing customers.

Regarding claims 26 and 44, the combination of Shah-Nazaroff, Gell and Son discloses different pricing schemes for varying levels of QoS and video options selected.

The combination of Shah-Nazaroff, Gell, Blahut and Son fails to disclose changing the price of viewing options based on subscriber profile data or subscriber priority data.

The examiner takes official notice that charging different prices to customers based on customer priority is notoriously well known in the art. For example, high profile customers may receive lower prices in order to ensure their loyalty.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell, Blahut and Son to include subscriber priority as a price criterion, in order to encourage subscriber loyalty.

Regarding claims 29, 37, and 41, Shah-Nazaroff discloses in figure , a bandwidth allocation manager(a server system with broadcast source i/o module 830, billing I/O 840, and client I/O 820, column 10, lines 1-36) that determines bandwidth allocation by dynamically assigning a content delivery mode to a plurality of digital transmission channels (column 6, lines 31-40, user orders a VOD program from a satellite provider, and is assigned to a channel with fewer simultaneous transmissions in order to receive

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a higher quality picture/resolution, a user may receive access to a CATV source with upgradeable options, column 6, lines 16-30, thus assigning more bandwidth to a channel which carries an upgraded program feature),

A pricing system that receiving bandwidth allocation information from the bandwidth allocation manager and assigns a price criterion to a group of bandwidth options (figure 5, view options and prices, this may be stored in a billing server; column 5, lines 54-67).

Shah-Nazaroff does not disclose dynamically assigning a price criterion to a group of viewing options based in part on bandwidth allocation information or positioning the bandwidth manager in the headend, the use of a DHCT, which receives and transmits requests to the headend or the use of a plurality of content delivery modes.

Gell discloses a database 905 which provides to a user with pricing information related to QoS for a program, as well as video resolution, and audio options, in response to a user request for VOD services (column 12, line 49-column 13, line 2), there may be multiple users (column 13, lines 40-47), the prices are generated dynamically, by receiving pricing from a number of different program providers (column 12, lines 49-60, column 13, lines 3-11, lowest price is selected based on QOS and quality selections, bandwidth allocation is the QOS settings for multiple channels and interfaces, prices may be different for different delivery mediums, column 5, lines 38-55), thus enabling a user to choose the best balance of quality and price.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Shah-Nazaroff to utilize the dynamic pricing and variable delivery methods of Gell, thus enabling a user to choose the best balance of quality and price.

The combination of Shah-Nazaroff and Gell does not disclose placing the bandwidth allocation manager in the headend.

Son discloses in figure 3, a number of SCM 314-317, located within headend 304, which act as bandwidth allocation managers for a number of subscriber stations 305-308 (column 6, lines 33—column 7, line 32), the SCMs provide a number of VOD channels via local nodes (column 7, line 47-51), the allocation process takes place in figure 7, in which a user requests VOD services in step 702, a SCM allocates bandwidth for the user and a PID for the user (step 310) and transmits the program in step 718 (column 9, lines 63-column 10, line 22), the user STB may be a digital STB capable of requesting video programming from the headend 304 (column 6, lines 36-39, subscribers communicate with the headend via the upstream return path via a tuner, column 5, lines 45-57) thus reducing latency by placing the bandwidth allocation manager within the headend, and allowing for interactive communications between the user and the headend.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff and Gell to place the bandwidth manager within a headend, as taught by Son, thus reducing latency by placing the bandwidth allocation manager within the headend, and allowing for interactive communications between the user and the headend.

The combination of Shah-Nazaroff, Gell and Son fails to teach the assignment of one of a plurality of content delivery modes to each of a plurality of digital transmission channels for a plurality of time periods

Blahut discloses a system in which two different VOD services are provided to users 222 from a headend 202 over a common medium over a number of virtual channels for a number of periods (column 4, lines 13-41) a user may select between a first set of virtual channels which include advertisements, and a second set without advertisements (column 4, lines 1-61), the users who select the VOD presentation with advertisements pay less to view the programming, further a schedule is provided (column 5, line 27-column 6, line 3, scheduling is on column 4, line 41-column 5, line 15).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell, and Son to utilize the virtual channel, content delivery modes and pricing features of Blahut, for the advantage of reducing subscriber costs by encouraging subscribers to watch advertising enabled programming.

Regarding claim 32, Shah-Nazaroff discloses in figure 5, a number of checkboxes for options and a submit button for an on demand movie.

The combination of Shah-Nazaroff, Gell, Blahut and Son do not disclose displaying a utilization indication of a viewing option.

The examiner takes official notice that displaying an indicator for utilizing a viewing option is well known in the art. Indicators help remind a user of what options they have selected.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell, Blahut and Son to display an indication that a viewing option is being used, thus reminding a user of which options they have selected.

Regarding claims 33 and 34, Shah-Nazaroff discloses in figure 5, a number of checkboxes for options and a submit button for an on demand movie.

The combination of Shah-Nazaroff, Gell, Blahut and Son do not disclose displaying an elapsed time or displaying an indication of usage of a viewing option intermittently.

The examiner takes official notice that displaying an elapsed time, for example an indicator, which notes that the program started 5 minutes ago, and an indicator displayed intermittently, such as a trick play indicator, is well known in the art. Elapsed time indicators enable a user to know how much of a program they have missed, and to display an indicator intermittently, to remind a user of the viewing option they are utilizing.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell, Blahut and Son to display an elapsed time, thus enabling a user to know how much of a program they have

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missed, and to display an indicator intermittently, to remind a user of the viewing option they are utilizing.

Regarding claims 35 and 36, Shah-Nazaroff discloses in figure 5, a number of checkboxes for options and a submit button for an on demand movie.

Shah-Nazaroff, Gell, Blahut and Son do not disclose displaying an indication of usage of a viewing option after a user uses a random access feature.

The examiner takes official notice that displaying a trick play indicator is well known in the art. Trick play indicators enable a user to know when a trick play feature has been activated.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell, Blahut and Son to utilize a trick play indicator, to let a user know when a trick play feature is activated.

Regarding claim 38, Shah-Nazaroff discloses a menu of viewing options.

Shah-Nazaroff, Gell, Blahut and Son do not disclose displaying a user selectable icon representing a menu of available alternate viewing options.

The examiner takes official notice that the use of a user selectable icon within an electronic program guide to bring up a menu of options is notoriously well known in the art. A user selectable icon enables a user to recognize when additional options are available for a program.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the user interface of the combination of Shah-Nazaroff, Gell, Blahut and Son to include a user selectable icon, thus enabling a user to recognize when additional options are available for a program.

Regarding claims 39 and 40, Shah-Nazaroff discloses in figure 5, a number of checkboxes for options and a submit button for an on demand movie.

The combination of Shah-Nazaroff, Gell, Blahut and Son does not disclose displaying an indication of usage of a viewing option after a user uses a random access feature.

The examiner takes official notice that displaying a trick play indicator is well known in the art. Trick play indicators enable a user to recognize when a trick play feature has been activated.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell and Son to utilize a trick play indicator, to let a user know when a trick play feature is activated.

Regarding claim 42, Shah-Nazaroff discloses in Figure 5, different pricing options, which include a normal, play option.

4. Claims 8 and 18, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,157,377 to Shah-Nazaroff in view of U.S. Patent 5,802,502 to Gell

and U.S. Patent 5,532,735 to Blahut in further view of U.S. Patent 6,057,872 to Candelore.

Regarding claims 8 and 18, Shah-Nazaroff discloses a system, which provides a number of viewing options to a user.

Blahut discloses assigning billing to different VOD programs.

The combination of Shah-Nazaroff, Gell and Blahut does not show assigning a price criterion to a subscriber incentive.

Candelore discloses a number of digital coupons which may be offered to a subscriber for the purchase of pay programs, different criteria allow different numbers of coupons to be transmitted to a user, such as the number of pay per view programs watched, recent programming upgrades and the like, trial of premium services may also be offered (column 5, line 6-column 7, line 5, Figure 4-7), thus encouraging a user to try out additional programming.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the dynamic pricing of viewing options as taught by the combination of Shah-Nazaroff, Gell, and Blahut to include a subscriber incentive as taught by Candelore, thus encouraging a user to try out additional programming.

5. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,157,377 to Shah-Nazaroff in view of U.S. Patent 5,802,502 to Gell and U.S. Patent 5,532,735 to Blahut in further view of U.S. Patent 6,697,376 to Son in further view of U.S. Patent 6,057,872 to Candelore.



Regarding claim 27, Shah-Nazaroff discloses a system, which provides a number of viewing options to a user.

Blahut discloses assigning billing to different VOD programs.

The combination of Shah-Nazaroff, Gell, Blahut and Son does not show assigning a price criterion to a subscriber incentive.

Candelore discloses a number of digital coupons which may be offered to a subscriber for the purchase of pay programs, different criteria allow different numbers of coupons to be transmitted to a user, such as the number of pay per view programs watched, recent programming upgrades and the like, trial of premium services may also be offered (column 5, line 6-column 7, line 5, Figure 4-7), thus encouraging a user to try out additional programming.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the dynamic pricing of viewing options as taught by the combination of Shah-Nazaroff, Gell, Blahut and Son to include a subscriber incentive as taught by Candelore, thus encouraging a user to try out additional programming.

Claims 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,157,377 to Shah-Nazaroff in view of U.S. Patent 5,802,502 to Gell, U.S. Patent 5,532,735 to Blahut and US. Patent 6,697,376 to Son in further view of U.S. Patent 6,701,528 to Arsenault.

Regarding claims 45 and 46, Shah-Nazaroff discloses a menu, which enables a user to select video options, and also includes a VCR 606 (figure 6).

The combination of Shah-Nazaroff, Gell, Blahut and Son does not disclose downloading and storing content in a storage device during a time of low bandwidth consumption.

Arsenault discloses a VOD system, which pre-stores a segment in a STB (Figure 2), segments may be downloaded in the middle of the night when there is more available bandwidth (column 16, lines 25-49), thus optimizing bandwidth utilization and provide on demand functions without consuming additional bandwidth.

Therefore it would have been obvious to one skilled in the art at the time of invention to modify the combination of Shah-Nazaroff, Gell, Blahut and Son to download VOD program segments overnight when more bandwidth is available as taught by Arsenault, thus optimizing bandwidth utilization and provide on demand functions without consuming additional bandwidth.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 571-272-7298. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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*Art Unit 2623*